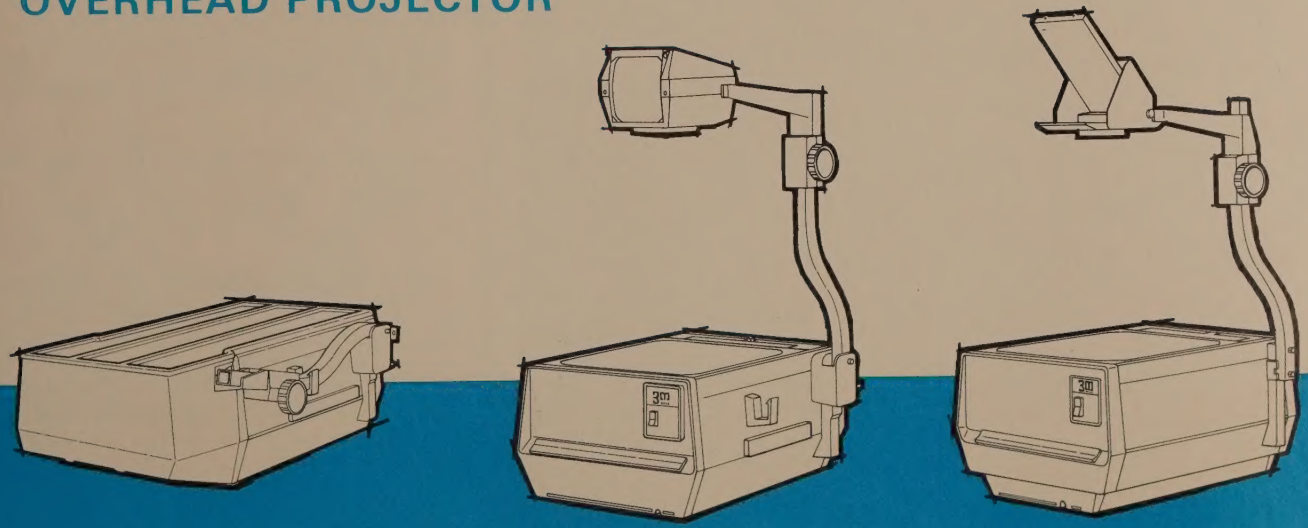
3M BRAND "213"

OVERHEAD PROJECTOR

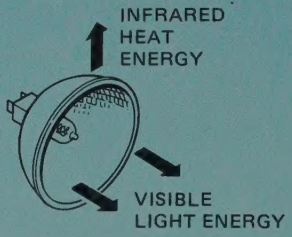


OPERATOR'S AND MAINTENANCE MANUAL

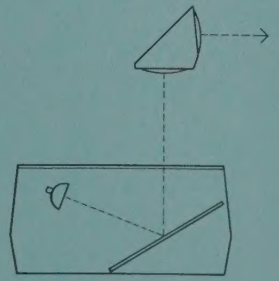
INTRODUCTION

NEW FOLDED OPTICS SYSTEM

All 3M Brand Model 213 Overhead Projectors have the new 3M "high-performance" Folded Optics System. The main component of this system is the efficient 360-watt dichroic reflector lamp. A 320-watt lamp is available for special projectors. These lamps produce more light energy than most conventional 650-watt lamps.

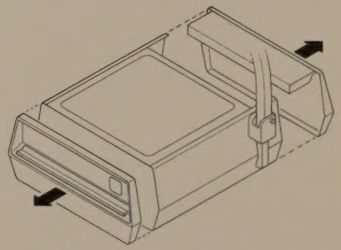


Another component of the new Model 213 Folded Optics System is the bonded one-piece eye-ease Optical Stage. This one-piece stage replaces the separate Fresnel lens and separate stage glass in most other overhead projectors.

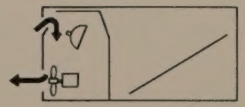


LOW-MAINTENANCE DESIGN

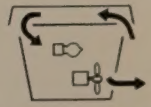
This new approach to overhead projector optics makes it possible for the Model 213 to have a low profile and modular design. The low profile is possible because the lamp is mounted in a compartment behind the Optical Stage. The modular design is possible because the entire Rear Lamp Module and Front Control Module can be easily removed from the projector body for servicing or replacing parts.



With the lamp in its compartment – not under the Fresnel lens as in most other overhead projectors – cooling air does not go over or around the optical components. As a result, the optical components do not have to be cleaned as often as in other projectors.



MODEL 213 AIRFLOW



CONVENTIONAL AIRFLOW

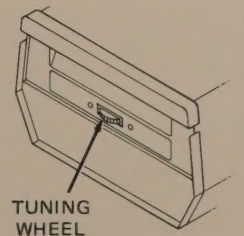
All heat is restricted to the compartment where the lamp is mounted, so the optical components cannot be damaged because of overheating.

Another low-maintenance component in all Model 213 projectors is the 3M "self-tightening" Focus System. Positive holding of the projection head is possible because of a pressure wedge which automatically adjusts for any wear in the Focus System.

For your safety, an electrical interlock switch cuts all power to the projector whenever the Access Door is opened or the Optical Stage is removed.

A Safety Cutoff Thermostat is another component in all Model 213 projectors. This thermostat cuts power to the lamp should overheating occur and prevents damage to all components if the cooling system fails. The thermostat automatically resets itself when the temperature returns to a safe level.

All Model 213 projectors have an Optical Tuning Wheel which means the projector can be used for optimum performance on screens as large as 305 cm (120") wide.



INTRODUCTION TO MODELS

The Model 213 projectors are available in two body sizes. One body is for the standard 254 mm (10") Optical Stage and the other larger body allows use of the new 267 mm (10-1/2") Optical Stage or the 286 mm (11-1/4") – A4 – Optical Stage.

Both of the body sizes are available in a variety of models which have different trim styles, projection heads, and optional components including:

- Fold-down Projection Post (Portable)
- Lamp Intensifier Switch
- Roller Attachment
- Lamp Changer
- Secondary Lamp Indicator
- Transparency Locator Pins
- Foot Switch

The Model 213 projector line is designed to meet all international requirements – 100-volt, 120-volt, 220-volt, and 240-volt, 50/60 Hz models are available.

120-volt, 220-volt, and 240-volt models use an 82-volt ENX lamp with a transformer or solid-state power supply to power the lamp. 220-volt and 240-volt models are also available with a special 36-volt ERV lamp system. 100-volt models use a 100-volt EPW lamp and operate on line voltage.

The information in this manual will aid you in operating and maintaining your Model 213 projector. This manual is written for all models of the 3M Brand Model 213 Overhead Projector, so not all sections will apply to your projector.

IMPORTANT SAFEGUARDS

WHEN USING YOUR 3M BRAND MODEL 213 OVERHEAD PROJECTOR, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED, INCLUDING THE FOLLOWING:

1. READ AND UNDERSTAND ALL INSTRUCTIONS.

2. CLOSE SUPERVISION IS NECESSARY WHEN ANY APPLIANCE IS USED BY OR NEAR CHILDREN. DO NOT LEAVE THE PROJECTOR UNATTENDED WHILE IN USE.

3. CARE MUST BE TAKEN WHEN THE ACCESS DOOR IS OPEN AS BURNS CAN OCCUR FROM TOUCHING HOT PARTS.

4. DO NOT OPERATE THE PROJECTOR WITH A DAMAGED CORD OR IF THE PROJECTOR HAS BEEN DROPPED OR DAMAGED UNTIL IT HAS BEEN EXAMINED BY A QUALIFIED SERVICEMAN.

5. DO NOT LET CORD HANG OVER EDGE OF TABLE OR COUNTER WHICH COULD DAMAGE OR CUT THE CORD, OR TOUCH HOT SURFACES.

6. IF AN EXTENSION CORD IS NECESSARY, A CORD WITH A SUITABLE CURRENT RATING SHOULD BE USED. CORDS RATED FOR LESS AMPERAGE THAN THE PROJECTOR MAY OVERHEAT. CARE SHOULD BE TAKEN TO ARRANGE THE CORD SO THAT IT WILL NOT BE TRIPPED OVER OR PULLED.

7. ALWAYS UNPLUG THE PROJECTOR FROM ELECTRICAL OUTLET WHEN NOT IN USE. NEVER YANK CORD TO PULL PLUG FROM OUTLET. GRASP PLUG AND PULL TO DISCONNECT.

8. LET THE PROJECTOR COOL COMPLETELY BEFORE PUTTING AWAY. INSERT CORD INTO CORD STORAGE COMPARTMENT WHEN STORING PROJECTOR.

9. TO PROTECT AGAINST ELECTRICAL SHOCK HAZARDS, DO NOT IMMERSE THIS PROJECTOR IN WATER OR OTHER LIQUIDS.

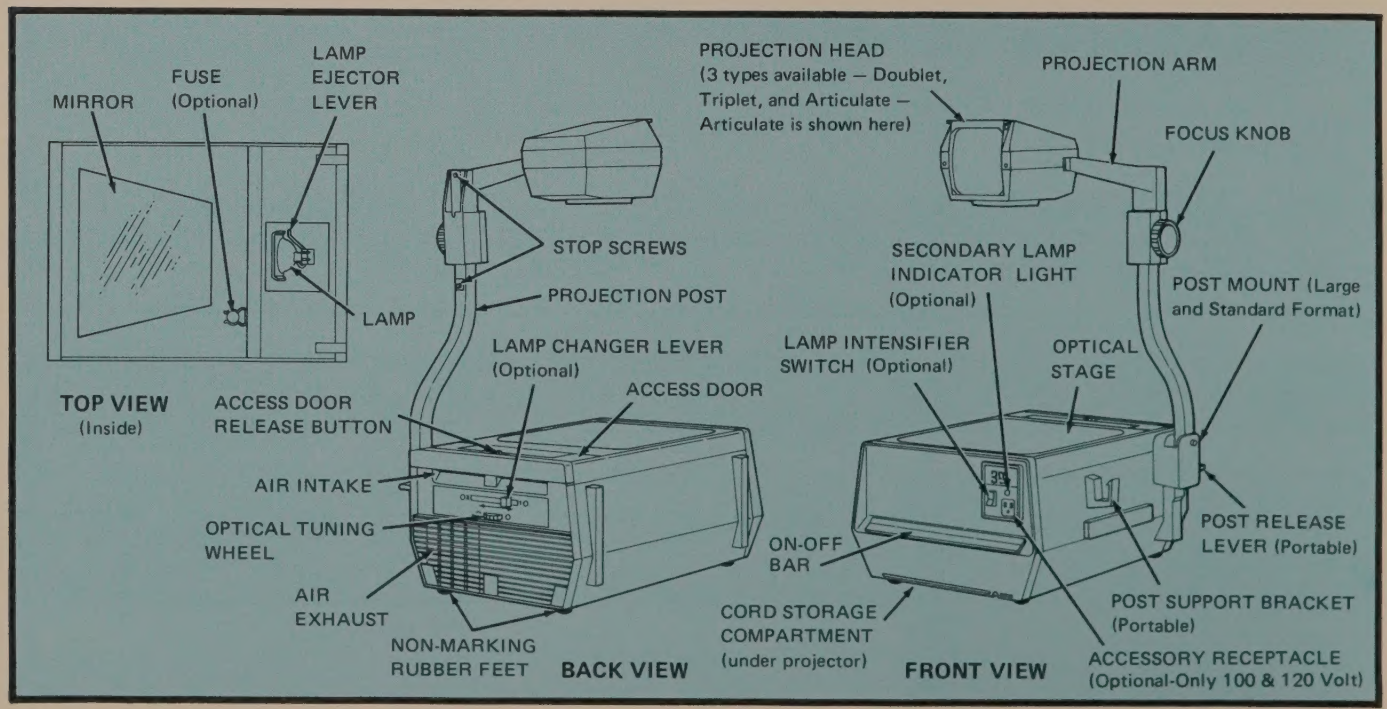
10. TO AVOID ELECTRICAL SHOCK HAZARD, DO NOT DISASSEMBLE THIS PROJECTOR, BUT TAKE IT TO A QUALIFIED SERVICEMAN WHEN SERVICE OR REPAIR WORK IS REQUIRED. INCORRECT REASSEMBLY CAN CAUSE ELECTRIC SHOCK HAZARD WHEN THE PROJECTOR IS USED SUBSEQUENTLY.

SAVE THESE INSTRUCTIONS

ELECTRICAL GROUNDING INSTRUCTIONS

This appliance is equipped with a three-wire (grounding) plug for your protection against shock hazards and should be plugged directly into a properly grounded receptacle. Where a two-prong wall outlet is encountered, it must be replaced with a properly grounded three-prong outlet in accordance with local codes and ordinances. Do not under any circumstances cut or remove the grounding provision from this plug.

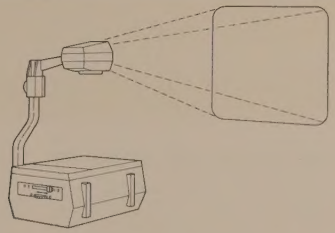
GETTING ACQUAINTED WITH YOUR MODEL 213 OVERHEAD PROJECTOR



PROJECTOR-TO-SCREEN DISTANCE TABLE

HOW TO USE THE TABLE BELOW

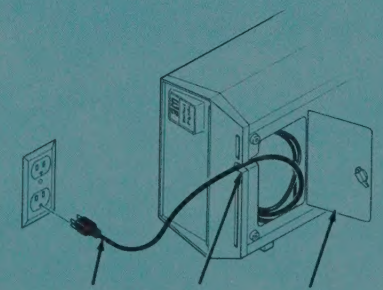
1. Locate the focal length and the stage aperture of your projector.
2. Locate the size of the projected image which you require.
3. Move horizontally from the projected image size column to the correct stage aperture column.
   — The distance listed is the distance your Model 213 should be from the screen.



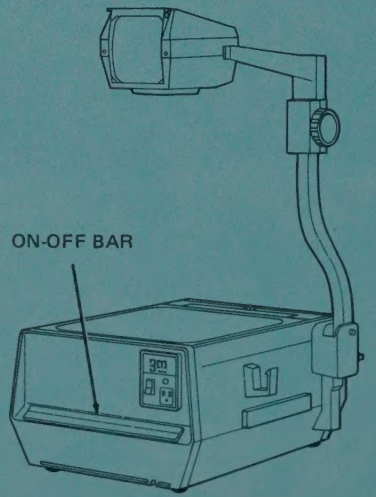
FOCAL LENGTH	STAGE APERTURE		STAGE APERTURE		STAGE APERTURE	
355 mm (14")	285 mm x 285 mm (11-1/4" x 11-1/4")		267 mm x 267 mm (10-1/2" x 10-1/2")		254 mm x 254 mm (10" x 10")	
PROJECTED IMAGE SIZE						
127 cm x 127 cm (50" x 50")	186 cm	74"	198 cm	78"	206 cm	81"
152 cm x 152 cm (60" x 60")	218 cm	86"	231 cm	91"	241 cm	95"
177 cm x 177 cm (70" x 70")	249 cm	98"	265 cm	105"	277 cm	109"
213 cm x 213 cm (84" x 84")	294 cm	116"	313 cm	123"	327 cm	129"
243 cm x 243 cm (96" x 96")	331 cm	131"	353 cm	139"	369 cm	146"
274 cm x 274 cm (108" x 108")	369 cm	146"	394 cm	155"	412 cm	162"
304 cm x 304 cm (120" x 120")	407 cm	161"	434 cm	171"	455 cm	179"
317 mm (12-1/2")	285 mm x 285 mm (11-1/4" x 11-1/4")		267 mm x 267 mm (10-1/2" x 10-1/2")		254 mm x 254 mm (10" x 10")	
PROJECTED IMAGE SIZE						
127 cm x 127 cm (50" x 50")	171 cm	67"	180 cm	71"	188 cm	74"
152 cm x 152 cm (60" x 60")	199 cm	78"	210 cm	83"	219 cm	87"
177 cm x 177 cm (70" x 70")	227 cm	89"	240 cm	95"	251 cm	99"
213 cm x 213 cm (84" x 84")	266 cm	105"	282 cm	111"	295 cm	116"
243 cm x 243 cm (96" x 96")	299 cm	118"	318 cm	126"	333 cm	131"
274 cm x 274 cm (108" x 108")	333 cm	131"	354 cm	140"	370 cm	146"
304 cm x 304 cm (120" x 120")	354 cm	140"	390 cm	154"	408 cm	161"

SET UP AND OPERATING PROCEDURE

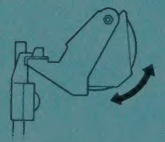
1. Connect the power cord to a properly grounded outlet. (Refer to the data plate on the base of the projector for electrical requirements.)



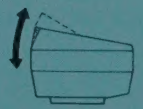
2. Place the projector on a level surface and energize the projector by pushing down the top portion of the On-Off Bar.



3. Adjust the image to the screen elevation by tilting the projection head.



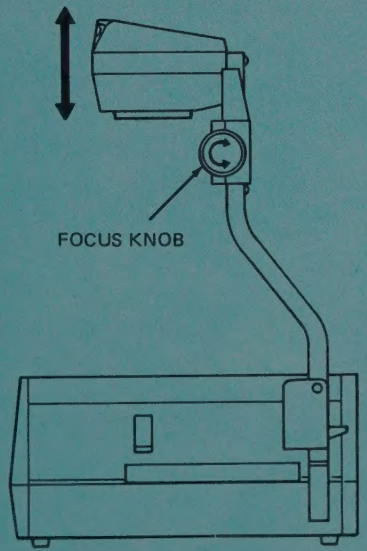
DOUBLET LENS PROJECTION HEAD



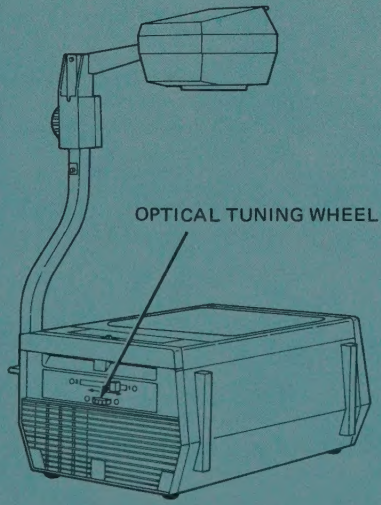
ARTICULATE LENS PROJECTION HEAD

TRIPLET LENS PROJECTION HEAD

4. Place a transparency on the stage and focus the projected image by rotating the Focus Knob.



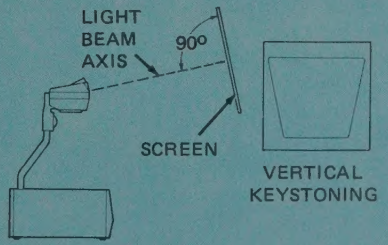
5. Eliminate any red or blue corners of the projected image by rotating the Optical Tuning Wheel until the corners are free of color.



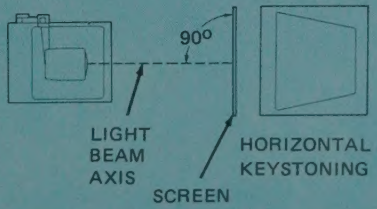
Rotate the wheel in this direction to remove blue corners.

Rotate the wheel in this direction to remove red corners.

6. Correct any vertical keystoning by tilting the screen until it is perpendicular to the light beam axis.



7. Correct any horizontal keystoning by moving the projector until it is square with the screen.



USE AND CHECKOUT OF OPTIONAL ITEMS

YOUR PROJECTOR MAY NOT HAVE THESE ITEMS

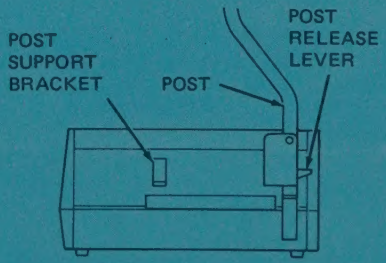
FOLD-DOWN POST (OPTIONAL)

Set Up

Unhook the Post Support Bracket and pull up the Post until it snaps into position.

Fold Down

Push the Post Release Lever and fold down the Post until it snaps into the Post Support Bracket.

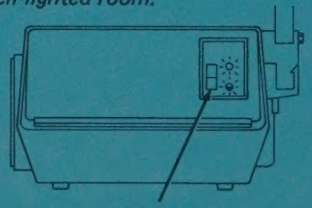


LAMP INTENSIFIER SWITCH (OPTIONAL)

Light output of the Model 213 increases approximately 10% when this switch is in the high position (☼). However, the life of the lamp is reduced.

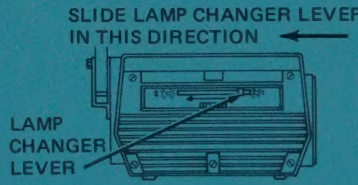
We recommend that you operate your Model 213 in the low position (☼).

NOTE: You may want to use the high position for dense transparencies or when you are projecting in a well-lighted room.



LAMP CHANGER (OPTIONAL)

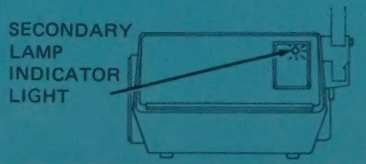
When the primary lamp fails, turn the projector off, then slide the Lamp Changer Lever on the rear of the projector to the secondary lamp position.



NOTE: Replace the burned-out lamp and return the Lamp Changer Lever to the primary lamp position before your next presentation.

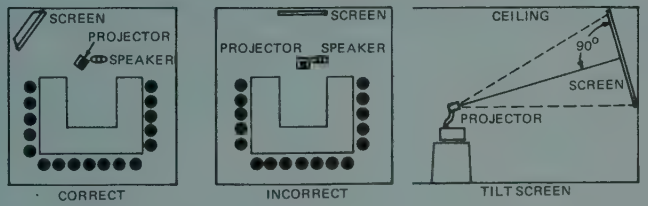
SECONDARY LAMP INDICATOR LIGHT (OPTIONAL)

This light will glow when the secondary lamp is in use.



OVERHEAD PROJECTOR TECHNIQUES TO MAKE YOUR PRESENTATIONS MORE EFFECTIVE

POSITION THE PROJECTOR AND SCREEN CAREFULLY TO PROVIDE THE COMPLETE AUDIENCE AN UNOBSTRUCTED VIEW AND ELIMINATE KEYSTONING.



Use the *REVELATION* technique to control what information your audience sees:

Place a sheet of opaque paper between the transparency and projector stage. Move the paper to progressively reveal – and project – more of the transparency as your discussion proceeds.

Use the *ON-OFF* technique to focus attention where you want it. With just a flick of the On-Off Bar, you can smoothly and naturally turn the audience's attention to the screen or to yourself.

Use the *POINTER* technique to draw attention to major points of your message. You simply point with a pen or pencil at the item on the projector stage and the pointer's shadow focuses attention on the same area on the screen.

Use the *WRITE-ON* technique to promote spontaneity and interaction between you and the audience. Write directly on the transparency with marking pens or pencils. Non-permanent ink is easily removed with a damp cloth.

Use the *OVERLAY* technique to simplify complicated concepts. Use Scotch Brand tape to hinge one, two or three additional transparencies to edges of base transparency. Drop the overlays on the base transparency one at a time to progressively add information and build audience interest.

ADDING COLOR

Vary your presentation and heighten audience interest by intermixing transparencies prepared on different types and colors of film. Or highlight important areas of a transparency by using 3M Brand Type 720 Colored Adhesive Film, or pens to add color.

MAKING ORIGINALS

Make your own originals by typing, printing, writing or drawing on a sheet of plain white paper. Use Number 2 lead pencils, India ink, black felt-tip pens or carbon content typewriter ribbon. Illustrations should be large and free of intricate detail; make lettering as large as possible and keep text brief.

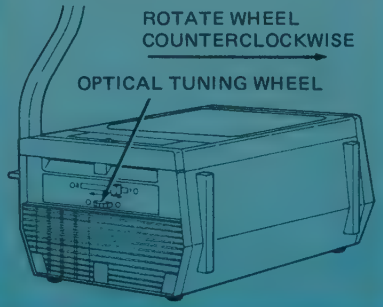
CARE AND MAINTENANCE

CAUTION: ALWAYS UNPLUG THE PROJECTOR BEFORE SERVICING IT

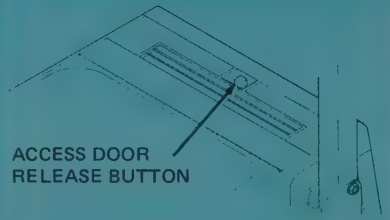
LAMP REPLACEMENT

NOTE: The Model 213 must remain on for 2 to 3 minutes when a lamp burns out. This will allow the fan to cool the burned-out lamp and prevent burned fingers. Unplug the projector after the lamp is cool.

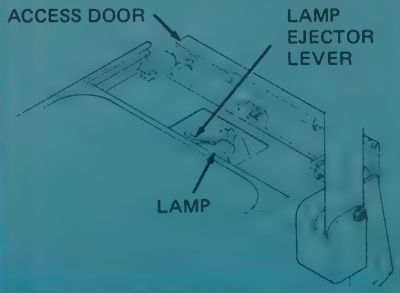
1. Rotate the Optical Tuning Wheel on the rear of the projector counterclockwise until it stops rotating.



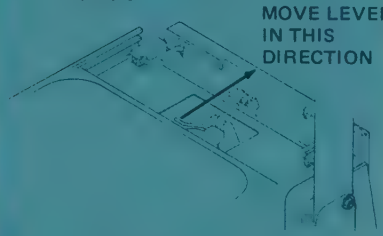
2. Push down the button which releases the Access Door.



3. Raise the Access Door and move it behind the rear of the projector.



4. Pull the Lamp Ejector Lever toward the rear of the projector. The lamp will then come out of its holder.



5. Lift the burned-out lamp out of the projector.
6. Replace the new lamp. Insert it fully into its holder.
7. Close the Access Door.
8. Turn the projector on.
9. Rotate the Optical Tuning Wheel until the projected image is white and has no red or blue corners.

CLEANING

PROJECTION HEAD LENSES AND THE OPTICAL STAGE

The Folded Optics design of the Model 213 keeps cleaning of the optical surfaces at a minimum.

NOTE: We do not recommend cleaning of the mirror in the Triplet Lens Projection Head and the mirror inside the body of the projector. (See MIRRORS on this page.)

The only optical surfaces which require cleaning are the outside lenses of the projection heads, and the top surface of the Optical Stage.

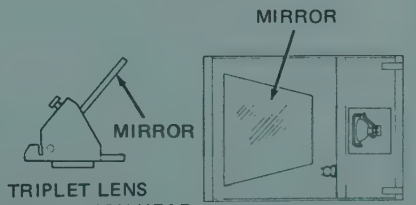
CLEAN EXPOSED LENS SURFACES

Clean the surfaces indicated with 3M Brand Lens Cleaner (78-9020-0032) or a mild detergent solution and a clean, soft, lint-free cotton cloth. *Do not use any paper cloths to clean these optical surfaces because they will become scratched.* Rinse and dry all optical surfaces after cleaning them. *Permanent damage to the optical surface can result if you do not thoroughly rinse and dry the optical surface.*

MIRRORS

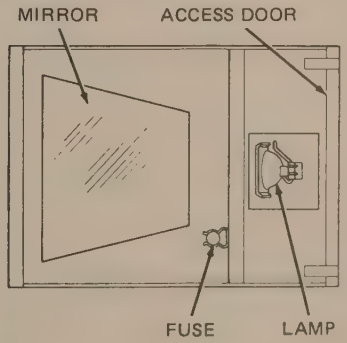
The mirror in the Triplet Lens Projection Head and the mirror inside the body of all Model 213 projectors are front-surface mirrors and must *NOT* be cleaned.

Remove any surface dirt on these two mirrors with a Camel Hair Brush *only*.



FUSE REPLACEMENT (OPTIONAL)

1. Push down the button which releases the Access Door. Raise the Access Door and move it behind the rear of the projector.
2. Slide out the Optical Stage toward the rear of the projector.



3. Remove the burned-out fuse by pulling it from the two clips which are holding it.
4. Replace the old fuse with a new fuse of the same rating.
5. Re-install the Optical Stage and close the Access Door.

PREVENTIVE MAINTENANCE CHECKOUT PROCEDURE

1. Connect plug into properly grounded electrical outlet.
   - Check for the correct operation of the latch and the hinge of the Cord Storage Compartment Cover.
   - Check the condition of the power cord and the plug.
2. Push the top portion of the On-Off Bar to energize the projector.
   - Does the On-Off Bar operate easily without binding?
   - Does the fan energize when the lamp energizes?
3. Adjust the height of the projected image by tilting the projection head.
   - Does the head tilt easily and hold its position?
4. Place a transparency on the stage and focus the projected image.
   - Does the Focus Knob rotate easily and does the projection head hold its focus position?
   - Check for good resolution of the image from top-to-bottom and side-to-side.
5. Rotate the Optical Tuning Wheel until brown corners appear in the projected image.
   - Are the brown corners equal in size as you rotate the wheel or are one or two corners larger than the other corners?
   - Does the Optical Tuning Wheel rotate easily?
6. Rotate the Optical Tuning Wheel until the projected image is free of color.
   - Is the projected image free of color when it is correctly focused?
7. Check for the correct operation of the Safety Interlock and the latch of the Access Door.
   - Open the Access Door.
     - Does the door open easily?
     - Does the lamp de-energize when you open the door?
   - Close the Access Door.
     - Does the door close easily and securely?
     - Does the lamp energize when you close the door?
8. Check for the correct operation of optional items.
   - Lamp Intensifier Switch
   - Lamp Changer
   - Secondary Lamp Indicator Light
   - Fold-down Post
9. Inspect the optical components for damage (i.e., scratched or broken).
   - Optical Stage
   - Projection Head Lenses/Mirror
   - Mirror (inside the projector body)
   - Lamp
10. Clean the projector.
    - Clean the exposed surfaces of projection head and the top surface of the Optical Stage. (See the CLEANING section of this manual for the correct procedure.)
    - Clean the cabinetry with a mild detergent solution.

TROUBLESHOOTING

CAUTION

The Trouble Shooting and Adjustments Sections of this manual are for use only by qualified service personnel.

PROBLEM – COMPLAINT CATEGORIES	BEFORE REQUESTING SERVICE, CHECK THESE ITEMS:	PROBABLE CAUSE OF PROBLEM (if problem persists after all items in prior column are checked out)
Projected image is:		
a. Corners of projected image appear red (brown) or blue.	– Is lamp of proper type? (ENX type is the only one acceptable.) – Is lamp properly seated down in its socket? – If unit is equipped with a lamp changer, is changer lever fully seated in the number one position? – Does rotating the optical tuning wheel on the rear of the machine eliminate the color?	– Damaged or misadjusted optics components (requires realignment of optics). – Head "knocked" out of alignment.
b. Top, bottom, or sides of projected image are not focused.	– Is lamp of proper type? (ENX type is the only one acceptable.) – Is lamp properly seated down in its socket? – If unit is equipped with a lamp changer, is changer lever fully seated in the number one position? – Has customer adjusted the optical tuning wheel and focus knob to obtain best possible image setting? – Are any of the optics components noticeably "knocked" out of alignment?	– Damaged or misadjusted optics components (requires realignment of optics). – Lamp not seated in.
c. Not as bright as it should be.	– Is lamp of proper type? (ENX type is the only one acceptable.) – Is lamp intensifier switch in high output position (if unit is so equipped)? – Is lamp properly seated down in its socket? – If unit is equipped with a lamp changer, is changer lever fully seated in the number one position? – Has another ENX lamp been tried? – Is optical tuning wheel on rear of machine set so image is free of red or blue corners?	– Defective lamp. – Damaged or misadjusted optics components (requires realignment of optics). – Defective intensifier switch (on units so equipped). – Corroded wiring connection.
Focus mechanism slips or is too tight.	– Has customer done any adjustment of roller tension (two screws inside focus cover)?	– Roller pad spring tension out of adjustment. – Worn wear pads.
Projection head does not remain in set tilt position (doublet head or articulate head only).		– Doublet head—tighten screws on head pivot shaft. – Articulate head—tighten tension on friction springs.
Lamp does not energize, but fan motor does energize.	– Is lamp burned out? – Is lamp of proper type? (ENX type is the only one acceptable.) – Is lamp properly seated down in its socket? – If unit is equipped with a lamp changer, is changer lever fully seated in the number one position?	– Defective lamp socket. – Defective overheat thermostat. – Defective lamp sensing switch (only on projectors equipped with lamp changer). – Defective lamp intensifier switch. – Loose or broken wire connection. – Defective power supply.
Neither lamp nor fan motor energize.	– Is power cord plugged into electrical outlet? – Is outlet supplying power to projector? – Is rear access door properly closed to activate interlock switch? (Optical stage must be in position.)	– On-off switch out of adjustment. – Defective interlock switch. – Loose or broken wire connection. – On-off switch defective.
Fan motor does not rotate, but lamp does energize.	– Is anything blocking rotation of fan motor?	– Loose or broken wire connection to motor. – Defective fan motor.
Both lamps of units with lamp changer energize at once.		– Defective lamp sensing switch.

ADJUSTMENTS

OPTICAL ALIGNMENT

Correct alignment of the optical components of your Model 213 is necessary for good resolution and illumination.

CHECKOUT

1. Set up your projector as described in the Set Up and Operating Procedure section of this manual. Be sure to correct any horizontal or vertical keystoning (Step 6 in the Set Up and Operating Procedure section).

   NOTE: Be sure the Lamp Changer Lever is fully in position. Observe the projected image and rotate the Optical Tuning Wheel until a brown color appears in the corners of the projected image. See Figures below.

Aligned correctly Not aligned correctly

- If your projector is aligned correctly, the brown corners will be equal in size.
- If your projector is not aligned correctly, one or two corners will have more brown color than the other corners.

ADJUSTMENT

If your projector is not aligned correctly:

1. Rotate the Optical Tuning Wheel until some brown color is viewed in each corner of the projected image.
2. One or both of the two Mirror Adjustment Screws must be adjusted until the brown corners are equal in size. See Figure below for the location of these two screws.

- Insert a Phillips-head screwdriver into one of the openings and tighten or loosen the Mirror Adjustment Screws according to the instructions below.

If your projected image looks like this, loosen both screws to decrease the mirror tilt.

If your projected image looks like this, loosen the right (side) screw to decrease the mirror tilt.

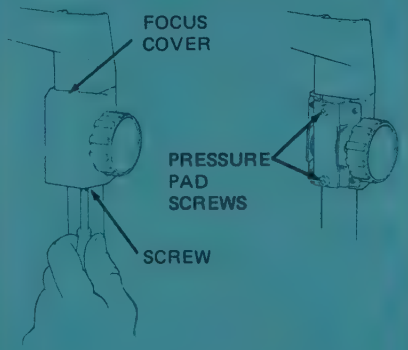
If your projected image looks like this, tighten the left (side) screw to increase the mirror tilt.

If your projected image looks like this, tighten both screws to increase the mirror tilt.

FOCUS ADJUSTMENT

Adjustment of the Focus Knob is necessary if the projection head does not hold its focus position.

- Remove the screw which holds the Focus Cover.
- Remove the Focus Cover.

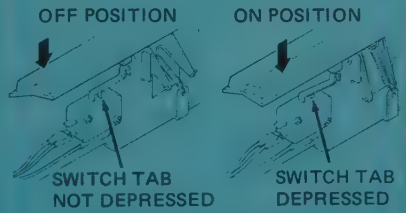


- Adjust the Pressure Pad Screws until the projection head holds its focus position.
- Re-install the Focus Cover.

ON-OFF SWITCH ADJUSTMENT

- Remove the six screws (large body projector) or five screws (small body projector) which hold the Front Control Module.
- Pull the Front Control Module away from the projector.

- Depress the top and bottom portions of the On-Off Bar and check if the microswitch operates as shown below.



If the Microswitch Does Not Operate Correctly:

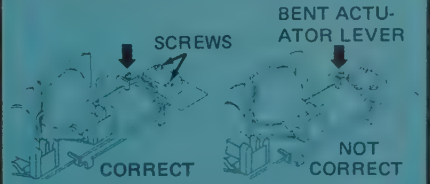
- Loosen the Switch Mounting Screws and move the switch until it operates correctly.

LAMP SENSING SWITCH ADJUSTMENT

(Optional – Only for Projectors with Lamp Changers)

- Remove the five screws which hold the Rear Lamp Module.
- Pull the Rear Lamp Module away from the projector.

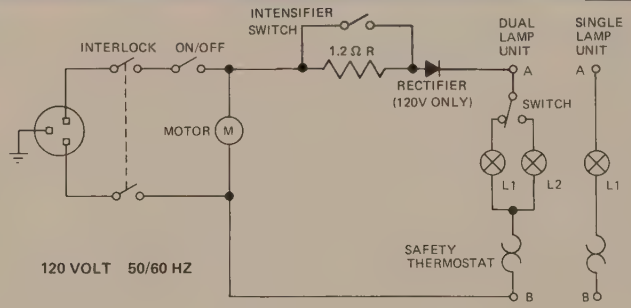
- Slide the Lamp Changer Lever to the Secondary Lamp position and check if the microswitch operates correctly as shown below.

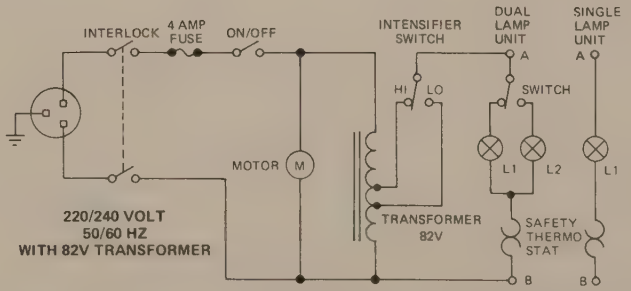


If the Microswitch Does Not Operate Correctly:

- Loosen the Switch Mounting Screws and move the switch until it operates correctly.

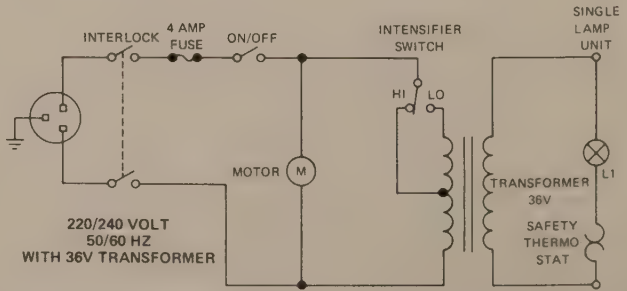
ELECTRICAL SCHEMATICS AND SPECIFICATIONS



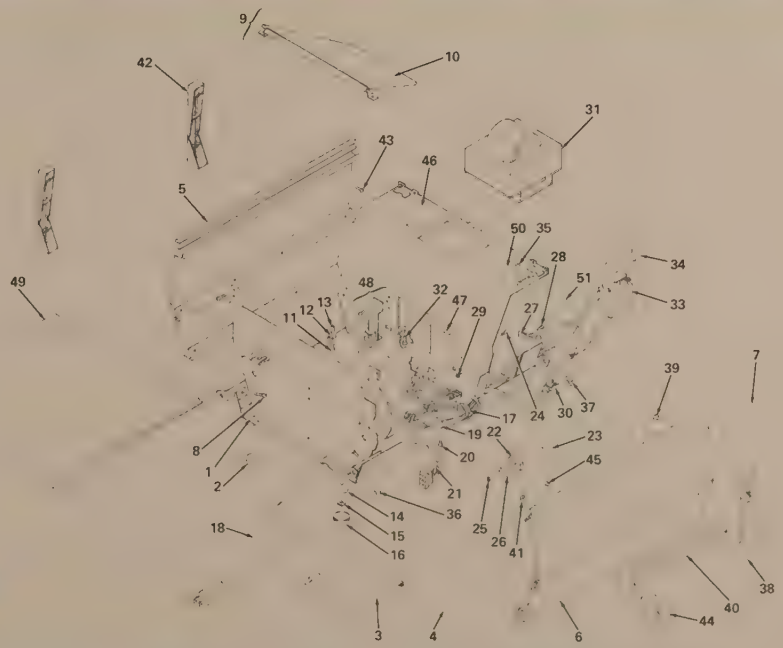


ELECTRICAL SPECIFICATIONS

RATED VOLTAGE INPUT	100	120	220	240
STANDARD MACHINES				
Lamp Voltage/Type	100 EPW	82 ENX	82 ENX	82 ENX
Lamp Power Supply	Line Voltage	Solid-State	Transformer	Transformer
Max. Total Amps	5	5	3	3
LOW VOLTAGE MACHINES				
Lamp Voltage/Type	Not Available	Not Available	36 ERV	36 ERV
Lamp Power Supply			Transformer	Transformer
Max. Total Amps			3	3



PARTS IDENTIFICATION



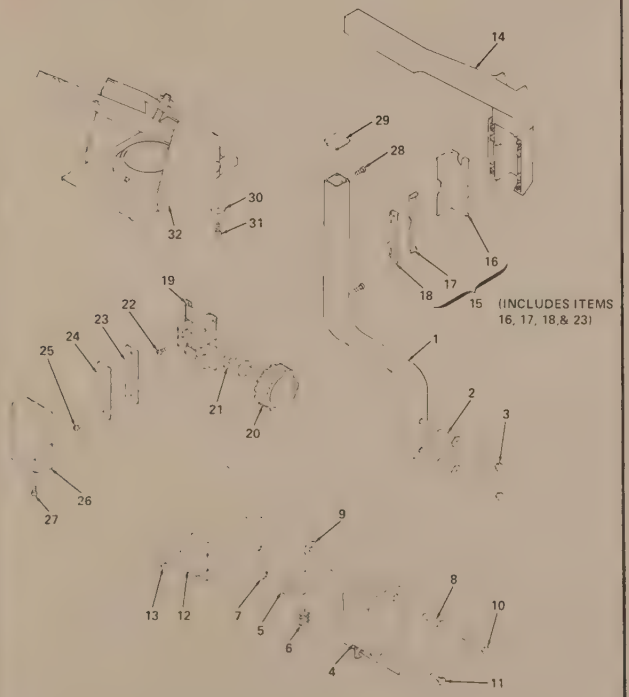
CHASSIS ASSEMBLY

CHASSIS ASSEMBLY

Item No.	Description	Part Number	Quantity Std Body (A)	Quantity Lg Body (B, C)
*	Base Cabinetry Assy		1	1
1	Base, Brkt, Foot, & Baffle Assy		1	1
2	Foot Rplmt Kit (Inc 4 Feet & 4 Self-Tapping Screws)	78-8014-8806-1		
3	Cord Cover Door Assy (Opt)	78-8014-8808-7	1	1
	Cord Cover Door	78-8011-1176-2	1	1
	Latch Door	78-8003-8952-6	1	1
	Knob Door	78-8011-1309-9	1	1
4	Pin – Hinge	78-8011-1307-3	1	1
5	Extrusion Left Side		1	1
	Non-portable			
	Unpainted	78-8011-1210-9	–	–
	Beige	78-8011-1209-1	–	–
	Portable			
	Beige	78-8011-1280-2	–	–
6	Extrusion Right Side		1	1
	Non-portable			
	Unpainted	78-8011-1208-3	–	–
	Beige	78-8011-1207-5	–	–
	Portable			
	Beige	78-8011-1279-4	–	–
7	Dinoc Side Trim (Opt)	78-8011-1304-0	2	2
8	Screw, M4x.7x8, Pan Hd Taptite	26-1000-0341-2	9	11
9	Mirror & Mtg Kit (Inc Items 10 – 16)	78-8014-8805-3		
10	Mirror & Brkt Assy	78-8011-1429-5	1	1
11	Screw	78-8032 0430-0	2	2
12	Spring (Lee LC-0262-2)	78-8032-2796-2	2	2
13	Washer	26-1000-0007-9	2	2
14	Block – Mirror Pivot	78-8011-1294-3	1	1
15	Retaining Ring (Truarc)	78-8656-4030-0	1	1
16	Cap – Mirror Pivot	78-8011-1293-5	1	1
17	Heyco Bushing	78-8003-8731-4	1	1
18	Power Cord		1	1
	United States	78-8011-1158-0	–	–
	Germany	78-8011-1159-8	–	–
	United Kingdom	78-8011-1160-6	–	–
	Australia	78-8011-1164-8	–	–
	Swiss	78-8011-1163-0	–	–
	France	78-8011-1162-2	–	–
	South Africa	78-8014-8841-8	–	–
19	Bushing – Strain Relief	DY-1160-2020-6	1	1
20	Screw, 6-19x3/4 Plastite	26-1000-0780-1	1	1
21	Wire Harness – Body		1	1
	100/120V w/82V Lamp	78-8011-1305-7	–	–
	220/240V w/82V Lamp & Autotransformer			
	W/Dimmer	78-8011-1306-5	–	–
	W/O Dimmer	78-8011-1477-		
	220 240V w 82V Lamp	78 8011 1478 2		
	220/240V w/36V Lamp & Auto transformer	78-8011-1479-0	–	–
22	Fuse Holder (Intl Only)	DY-9920-0420-9	1	1

Item No.	Description	Part Number	Quantity Std Body (A)	Quantity Lg Body (B, C)
23	Insulator for Fuse Holder (Intl Only)	78-8011-1303-2	1	1
24	Screw (Intl Only) M3x.5x6	26-1000-0338-8	1	1
25	Nut (M-3)	78-8010-7420-0	1	1
26	Fuse (Intl Only)		1	1
	4 Amp	78-8032-3270-7	2	2
	6 Amp	78-8032-3897-7	2	2
27	Ground Terminal	DY-7605-0290-5	1	1
28	Screw, M.4x 7x6	78-8010-7255-0	1	1
29	Nut (M4)	78-8010-7421-8	1	1
30	Cable Clamps	26-1000-0275-2	5	5
31	Power Supply (220-240V Only)		1	1
	Transformer Assy (220-240V Only)		1	1
	82V Lamp	78-8011-1327-1		
	36V Lamp	78-8011-1477-4		
32	Screw, M4x.7x6	78-8010-7255-0	4	4
33	Interlock Switch	78-8010-0086-6	1	1
34	Brkt – Switch Guard	78-8011-1384-2	1	1
35	Screw, M4x.7x20	78-8010-7258-4	2	2
36	Clip – U Type Tinnerman (Front)	78-8032-2869-7	2	2
37	Clip – U Type Tinnerman (Rear)	78-8032-2870-5	5	5
38	Post Mount		1	1
	Beige	78-8011-1271-1		
	Silver	78-8011-1247-1		
39	Screw, M6x1 0x10	26-1000-0403 0	2	2
*	Portability Components (Portable Models Only)		1	1
40	Handle	78-8011-1218-2	1	1
41	Nut	18-1749-2216-3	2	2
42	Foot (Side)	78-8011-1260-4	2	2
43	Screw, 6-19x3/8	26-1000-0336-2	4	4
44	Latch - Post Lock	78-8011-1259-6	1	1
45	Screw, M4x8 TT	26-1000-0336-2	2	2
46	Label – Lamp Change		1	1
	82V Lamp	78-8011-1421-2		
	36V Lamp	78-8011-1457-6		
	100V Lamp	78-8011-1456-8		
47	Label – Fuse (Intl Only)		1	1
	4 Amp	78-8011-1343-8		-
	6.3 Amp	78-8011-4466-7		-
48	Lamp Indicator Components (See Front Control Module Assy)		1	1
49	3M Optical Stage Assy		1	1
	Large Body Units			
	11-1/4 (285 mm)	78-8011-1332-1		
	10-1/2 (267 mm)	78-8011-1386-7		
	Std Body Units			
	10 (254 mm)	78-8011-1202-6		
50	Label, Caution	78-8014-8816-0	1	1
51	Clip	78-8032-4278-9	1	1

*Title Only

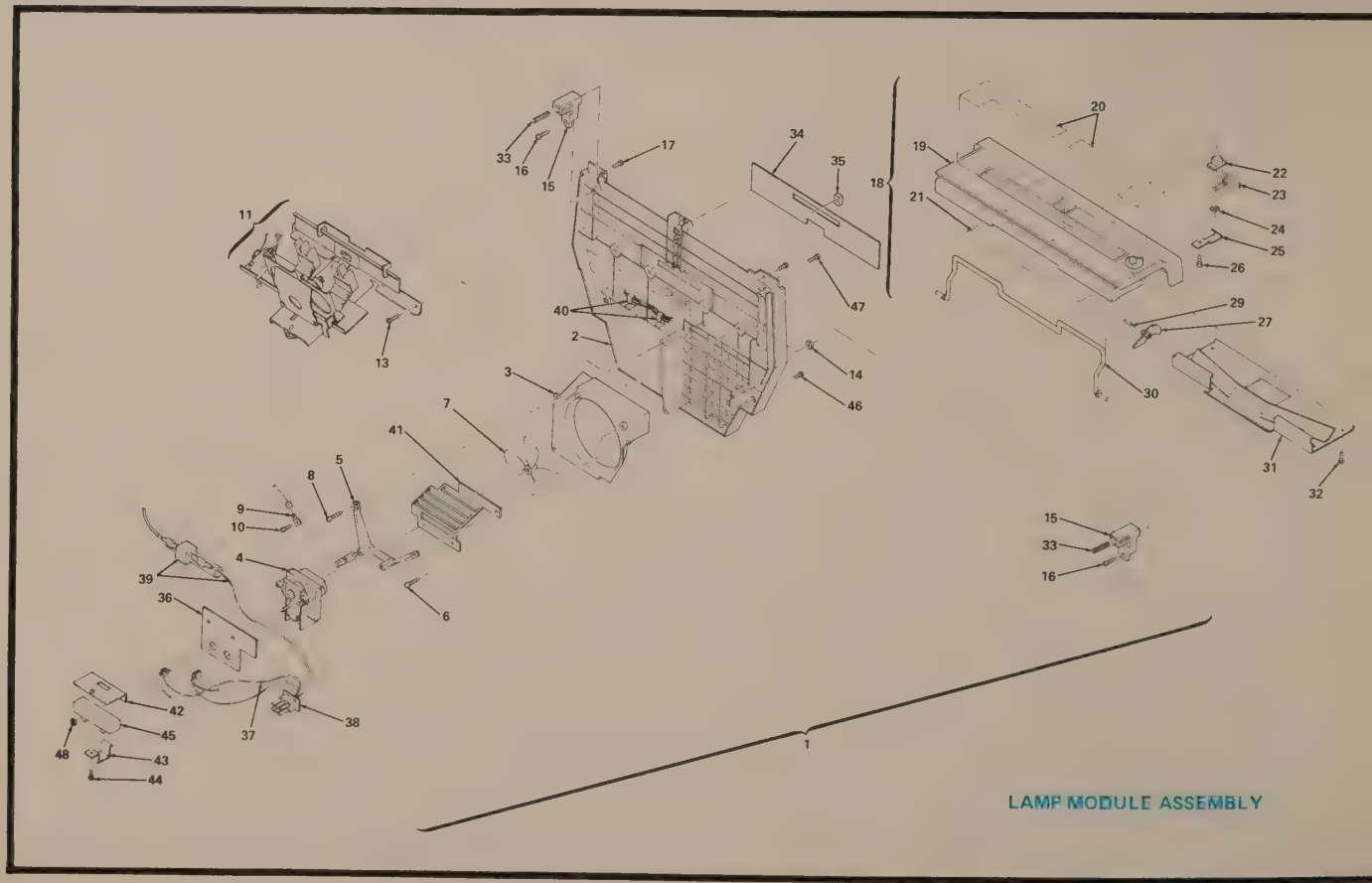


POST MOUNT, ARM, AND FOCUS ASSEMBLY

POST MOUNT, ARM, AND FOCUS ASSEMBLY

Item No.	Description	Part Number	Quantity Non-Portable (A – F)	Quantity Portable (G – K)
•	Post and Mount Assy		1	1
1	Post	78-8011-1154-9	1	1
•	Mounting Assy		1	1
•	Non-Portable Mount Assy		1	
2	Bushing – Guide (Non-Portable)	78-8011-1251-3	2	
3	Screw, M5x.8x35	26-1000-0344-6	2	
•	Post Lock Assy (Portable Only)			1
4	Cover Assy – Portable Hinge Pivot Pin (Staking)	78-8011-1430-3		1
5	Lock	78-8011-1248-9		1
6	Spring – Lock	78-8011-1252-1		1
7	Ring – Retaining (Truarc)	78-8656-4016-9		1
8	Bushing – Pivot (Portable)	78-8011-1250-5		1
9	Washer	78-8011-1349-5		2
10	Screw, M5x.8x40	26-1000-0345-3		1
11	Screw, M5x.8x14	26-1000-0343-8		1
12	Shield – Post Locks	78-8011-1422-0		1
13	Screw	26-1000-0338-8		2
•	Arm and Focus Assy		1	1
14	Arm	78-8011-1352-9	1	1
•	Focus Assy		1	1
15	Wear Pad Kit (Inc Items 16, 17, 18, and 23)	78-8014-8807-9		
16	Wear Pad (Angle)	78-8011-1220-8	1	1
17	Wedge	78-8011-1230-7	1	1
18	Spring – Wedge	78-8011-1219-0	1	1
19	Bracket – Roller	78-8011-1231-5	1	1
20	Knob and Roller Assy	78-8011-1428-7	1	1
21	Washer	78-8011-1234-9	1	1
22	Screw, M3x.5x6 TT	26-1000-0338-8	4	4
23	Wear Pad – Roller	78-8011-1229-9	1	1
24	Spring – Roller Pad	78-8011-1228-1	1	1
25	Screw, M4x.7x10 Pan Hd TT	26-1000-0342-0	2	2
26	Cover – Roller	78-8011 1308 1	1	1
27	Screw, M3x.5x6 TT	26-1000-0338-8	1	1
28	Screws – Travel Stop, M4x.7x8	26-1000 0341-2•	1	2
29	Plug – Post Cap	78-8011 1420-4	1	1
30	Washer – Head Mounting	26-1000 0601-9	2	2
31	Screw – Head Mounting	78-8032 0430-0	2	2
32	Projection Head Assy		1	1
	Std Dbl Hd (See Mtg Components Under Projection Hd Assy – Doublet)			
	355 mm (14")	78-8014-8751-9		
	325 mm (12.5")	78-8014-8750-1		
	Articulate			
	355 mm (14")	78-8011-1426-1		
	Triplet			
	317 mm (12-1/2")	78-8011-1425-3		

•Title Only

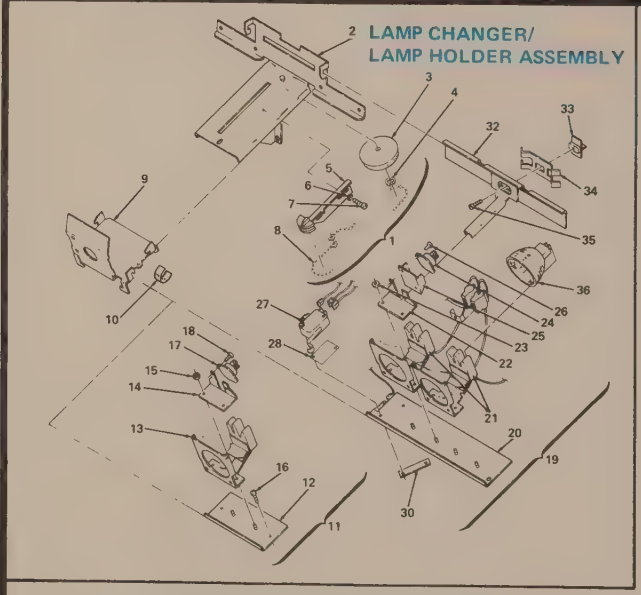

LAMP MODULE ASSEMBLY

LAMP MODULE ASSEMBLY

Item No.	Description	Part Number	Quantity Std Body (A)	Quantity Lg Body (B, C)
1	Lamp Module Assy		1	
•	Rear End Cap Assy		1	1
2	Rear End Cap			
	Standard	78-8011-1169-7	1	
	Large	78-8011-1173-9		1
3	Shroud Fan	78-8011-1255-4	1	1
4	Motor			
	100V	78-8011-1318-0	1	1
	120V	78-8011-1193-7		
	220/240V	78-8011-1317-2		
5	Motor Mount	78-8011-1336-2	1	1
6	Screw TT 6-19x5/8	78-8005-6304-7	3	3
7	Fan Blade	78-8011-1277-8	1	1
8	Screw, 6/32 x 5/8	78-8657-9417-2	2	2
9	Ground Tab	78-8011-1342-0	1	1
10	Screw, M4x.7x6	78-8010-7255-0	1	1
11	Lamp Changer/Lamp Holder Assy		1	1
	82V and 100V Lamps		-	–
	Single Lamp		–	–
	Single Lamp with Variable Iris		–	–
	Lamp Changer		–	–
	Lamp Changer with Indicator		–	–
	Lamp Changer with Variable Iris		–	–
	Lamp Changer & Variable Iris & Indicator		–	–
	36V Lamps			
	Single Lamp		–	–
	Single Lamp with Variable Iris		-	–
12	Not Used			
13	Screw, M4x.7x6	78-8010-7255-0	4	4
14	Nut, Hex 6-32	78-8010-7421-8	4	4
15	Bracket – Hinge			
	Small	78-8011-1285-1	2	
	Large	78-8011-1286-2		2
16	Screw, Flat Head	26-1000-0337-0	2	2
17	Screw, Pan Head	26-1000-0336-2	2	2
18	Top Cover Assy		1	1
19	Top Cover			
	Small	78-8011-1171-3	1	
	Large	78-8011-1172-1		1
20	Trim Tape (Top)			
	Right Side	78-8011-1298-4	1	1
	Left Side	78-8011-1299-2	1	1
21	Tape-Heat Shield			
	Small	78-8011-1372-7	1	
	Large	78-8011-1375-0		1

Item No.	Description	Part Number	Quantity Std Body (A)	Quantity Lg Body (B, C)
22	Knob – Latch	78-8011-1240-6	1	1
23	Latch – Wire Form	78-8011-1236-4	1	1
24	Retainer (5115-12)	78-8656-5801-3	1	1
25	Spring – Latch	78-8011-1281-0	1	1
26	Screw, 6-19x3/8 Pan Head	78-1000-0336-2	1	1
27	Actuator – Interlock	78-8011-1244-8	1	1
28	Not Used			
29	Pin – Kaydon AA-174	78-8032-2795-4	1	1
30	Hinge – Wire Form			
	Small	78-8011-1282 8	1	
	Large	78-8011-1283-6		1
31	Plate – Hinge Ret.			
	Small	78-8011-1301-6	1	
	Large	78-8011-1300-8		1
32	Screw, 6-19x3/8 PT	26-1000-0337-0	4	4
33	Spring, LC-026C-8	78-8032-2798-8	2	2
34	Nameplate – Rear		1	1
	Single Lamp	78-8011-1206-7		
	Lamp Changer	78-8011-1179-6		
35	Knob – Changer	78-8011-1266-1	1	1
36	Shield – Resistor	78-8011-1431-1	1	1
37	Wire Harness – Rear		1	1
38	Male Plug	78-8032-2422-5	1	1
39	Wire Leads			
	All Models	78-8011-1320-6	1	
	All Models	78-8011-1367-7	1	1
	All Models	78-8011-1339-6	1	1
	Only 100 and 120V w/Changer	78-8011-1370-1	1	1
	Only for 220 and 240V w/Changer	78-8011-1368-5	1	1
	For all LC units	78-8011-1365-1	1	1
	For all 82V Single Lamp Units			
	For all 36V Units	78-8011-1475-8	1	1
	For all Units w/Dimmer	78-8011-1369-3	1	1
	For all Units w/Dimmer	78-8011-1371-9	1	1
	Rectifier (For 120V Units Only)	78-8011-1383-4	1	1
40	Cable Clamps	26-1000-0354-5	2	2
41	Light Shield	78-8011-1458-4	1	1
•	Dimmer Components		1	1
42	Bracket – Dimmer Resistor	78-8011-1269-5	1	1
43	Clamp – Dimmer Resistor	78-8011-1270-3	1	1
44	Screw, M4x.7x6	78-8010-7255-0	1	1
45	Resistor – Dimmer	78-8011-1198-6	1	1
46	Screw, M5x.8x10	78-8010-7262-6	3	3
47	Screw, M5x.8x20	78-8010-7264-2	2	2
48	Nut	78-1728-1516-1	1	1

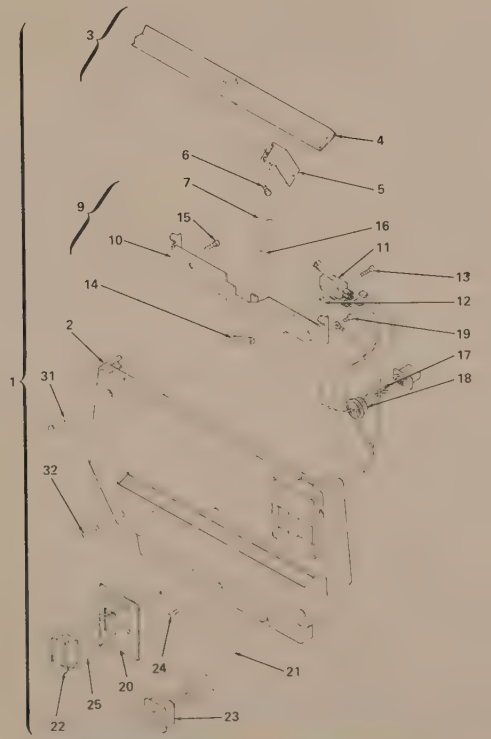
*Title Only



LAMP CHANGER/LAMP HOLDER ASSEMBLY

Item No.	Description	Part Number	Quantity: Single Lamp (A, B)	Quantity: Lamp Changer (C – F)
*	Lamp Changer/Lamp Holder Module		1	
1	Light Source Bracket Assy		1	
2	Light Source Bracket	78-8011-1455-0	1	1
3	Knob, Color Tuning	78-8011-1340-4	1	1
4	Retaining Ring	78-8656-4001-1	1	1
5	Idler – Slide	78-8656-1239-8	1	1
6	Washer – Star	78-8010-7487-9	2	2
7	Screw, 4 mm x 8 TT	26-1000-0341-2	2	2
8	Chain – Bead	78-8011-1227-3	1	1
9	Lamp Carriage Assy		1	1
	Standard Aperture	78-8011-1222-4	–	–
	Variable Iris Assy	78-8014-8828-5		-
10	Spring Clip	78-8011-1499-8	1	1
*	Lamp Holder/Lamp Changer Assy		1	1
11	Lamp Holder Assy (Single Lamp Only)		–	
	82V Lamp (100 & 120V Units)	78-8014-8827-7		
	82V Lamp (220/240V Units)	78-8014-8826-9		
	36V Lamp (All)	78-8014-8818-6		
12	Plate Lampholder Assy	78-8014-8813-7	1	
13	Lampholder		1	
	82V Lamp	78-8011-1189-5	–	
	36V Lamp	78-8011-1402-8	–	
14	Bracket – Thermostat (Single)	78-8011-1272-9	1	
15	Nut, M3x.5	78-8010-7420-0	2	
16	Screw, M3x7x6 TT	26-1000-0338-8	1	
17	Thermostat Safety	78-8011-1191-1	1	
18	Screw, M3x5x6 TT	26-1000-0338-8	2	
19	Lamp Changer Assy		–	-
	82V Lamp	78-8014-8814-5	-	–
20	Changer Slide Assy	78-8011-1454-3		1
21	Lampholder			2
	82V Lamp	78-8011-1189-5		–
	36V Lamp	78-8011-1402-8		–
22	Thermostat Bracket (Changer)	78-8011-1344-6		1
23	Nut, M3x.5	78-8010-7420-0		4
24	Thermostat Safety	78-8011-1191-1		1
25	Shield – Thermostat			1
26	Screw, M3x.5x6	26-1000-0338-8		1
27	Switch – (Sensing) Cherry	78-8011-1197-8		1
28	Insulator – Switch	78-8011-1267-9		1
29	Not Used			
30	Plate – Nut	78-8011-1326-3		1
31	Not Used			
32	Yoke – Changer	78-8011-1224-0		1
33	Stud – Changer	78-8011-1265-3		1
34	Detent – Changer	78-8011-1284-4		1
35	Screw – 6-19x3/8 PT	26-1000-0336-2		1
36	Lamp		1	2
	ENX, 360W, 82V	78-8011-1186-1	-	-
	ERV, 320W, 36V	78-8011 1403-0	-	
	EPW, 360W, 100V	78-8011-1199-4	-	-

*Title Only

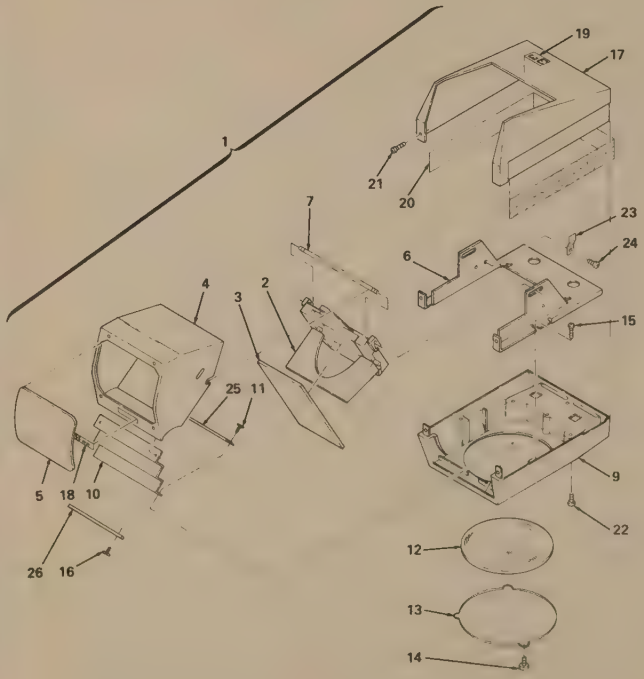


FRONT CONTROL MODULE ASSEMBLY

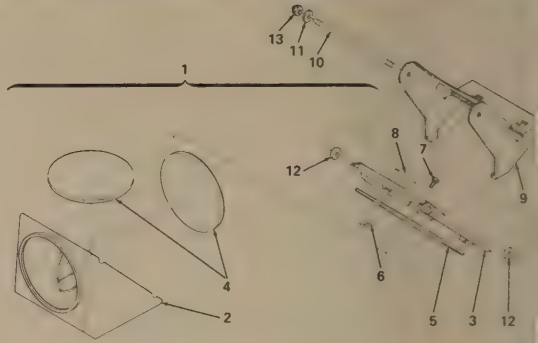
FRONT CONTROL MODULE ASSEMBLY

Item No.	Description	Part Number	Quantity Std Body (A)	Quantity Lg Body (B, C)
1	Front End Cap Assy		1	1
2	Front End Cap			
	Small	78-8011-1170-5	1	
	Large	78-8011-1168-9		1
3	Switch Bar Assy	78-8011-1482-4	1	1
4	Bar Switch	78-8011-1175-4	1	1
5	Bracket Spring	78-8011-1313-1	1	1
6	Screw, 6-19x3/8 Plastite	26-1000-0336-2	1	1
7	Yoke – Wire	78-8011-1319-8	1	1
8	Not Used			
9	Bracket and Switch Assy	78-8011-1481-6	1	1
10	Bracket – Switch	78-8011-1310-7	1	1
11	Switch (On-Off)		1	1
	100 & 120V Units	78-8014-8833-5		
	220 & 240V Units	78-8011-1197-8		
12	Shield Switch	78-8011-1192-9	1	1
13	Screw M3x.5x16	78-8032-0428-4	2	2
14	Plate – Nut	78-8011-1326-3	1	1
15	Screw, 6-19x3/8	26-1000-0336-2	3	3
16	Spring	78-8011-1321-4	1	1
17	Wire Harness – Control Module		1	1
	Plug – Male	78-8032-2422-5	1	1
	Wire Lead	78-8011-1320-6	2	2
	Ground Cable	78-8011-1302-4	1	1
18	Heyco Bushing	78-8003-8731-4	1	1
19	Screw (Grounding), M3x.5x6	26-1000-0338-8	1	1
20	Nameplate – Front End Cap		1	1
	Standard	78-8011-1184-6	-	
	Dimmer Only	78-8011-1178-8	-	-
	Dimmer and Indicator	78-8011-1373-5	-	
	Indicator Only	78-8011-1374-3	-	-
	Accessory Outlet Only	78-8011-1185-3	1	1
	Dimmer & Accessory Outlet	78-8011-1177-0	1	1
21	Label – Voltage		1	1
	100V Units	78-8011-1345-3		
	120V Units	78-8011-1346-1	-	-
	220V Units	78-8011-1347-9	-	-
	240V Units	78-8011-1348-7		
22	Dimmer Switch		1	1
	220/240V Units	78-8011-1195-2		
	100/120V Units	78-8011-1289-3		
23	Accessory Outlet (100 & 120V Units Only)	78-8011-1194-5	1	1
*	Lamp Indicator Components		1	1
24	Screw	26-1000-0340-4	1	1
25	Indicator	78-8014-8881-1	1	1
26	Not Used			
27	Not Used			
28	Not Used			
29	Not Used			
30	Not Used			
31	Screw, M4x.7x16	78-8032-0430-0	5	2
32	Screw, M4x.7x22	26-1000-0339-6	0	3

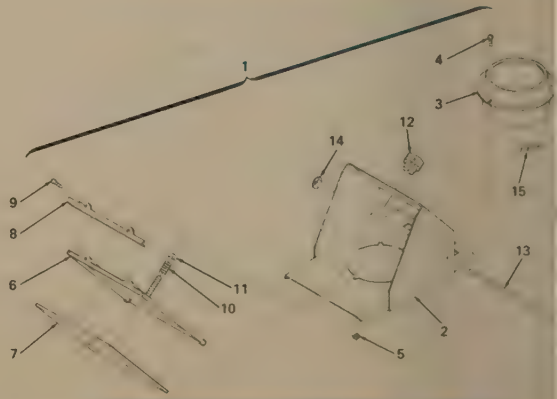
*Title Only



PROJECTION HEAD ASSEMBLY – ARTICULATE



PROJECTION HEAD ASSEMBLY – DOUBLET



PROJECTION HEAD ASSEMBLY – TRIPLET

PROJECTION HEAD ASSEMBLY – ARTICULATE

Item No.	Description	Part Number	Quantity
1	Projection Head Assy – Articulate	78-8011-1426-1	1
*	Mirror, Base and Front Housing Assy		1
*	Mirror and Holder Assy		1
2	Mirror Holder	78-8011-1436-0	1
3	Mirror	78-8011-1444-4	1
*	Exit Lens & Front Housing Assy		1
4	Housing (Front) Exit Lens	78-8011-1442-8	1
5	Exit Lens		1
	355 mm (14")	78-8014-8812-9	–
6	Pivot – Support Bracket	78-8011-1446-9	1
7	Pivot Pin	78-8011-1445-1	1
8	Not Used		
*	Base Head Assy		1
9	Base – Head	78-8011-1443-6	1
10	Dust Shield	78-8011-1435-2	1
11	Screw (Dust Shield)	26-1000-0685-2	2
12	Entrance Lens		1
	355 mm (14")		–
	85 mm (3.50") diameter	78-8011-1157-2	–
	87 mm (3.62") diameter	78-8011-1440-2	–
13 & 14	Lens Retainer Components		1
	For 85 mm (3.50") dia. lenses		
	Clip	78-8014-8804-6	–
	Screw	26-1000-0685-2	–
	For 87 mm (3.62") dia. lenses		
	Ring – Lens Retainer	78-8011-1441-0	–
	Screw	26-1000-0684-5	–
15	Screw (Bracket to Base)	26-1000-0336-2	2
16	Screw (Dust Shield)	26-1000-0685-2	2
17	Cover – Head	78-8011-1439-4	1
18	Label – Focal Length		1
	355 mm (14")	78-8011-1335-4	–
19	Label – 3M Logo	78-8011-1201-8	1
20	Trim – Dinoc	78-8011-1492-3	1
21	Screw TT (Front)	26-1000-0685-2	2
22	Screw PT (Bottom)	26-1000-0336-2	2
23	Spring Tension	78-8014-8817-8	1
24	Screw (Spring)	78-8010-7349-1	2
25	Clamp – Dust Shield	78-8014-8885-5	2
26	Retainer	78-8696-6104-7	1

*Title Only

PROJECTION HEAD ASSEMBLY – DOUBLET

Item No.	Description	Part Number	Quantity
*	Projection Head and Mount Assy		1
1	Projection Head Assy – Doublet		
	355 mm (14")	78-8014-8751-9	1
	355 mm (14")	78-8011-1424-6	–
	305 mm (12")		–
2	Case	78-8005-2146-6	1
3	Cover	78-8005-2147-4	1
4	Lens		2
	355 mm (14")	78-8011-1157-2	–
	305 mm (12")	DY-0660-0001	–
5	Mirror	78-8011-1203-4	1
6	Clip – U Type	78-8005-2149-0	3
7	Screw	78-8005-2150-8	4
8	Label		1
	355 mm (14")	78-8011-1201-8	–
	305 mm (12")		–
9	Head Holder Doublet	78-8011-1217-4	1
10	Shaft	78-8000-5325-4	1
11	Washer	18-9813-1003-2	2
12	Spacer	78-8697-9729-6	2
13	Nut	78-8654-3100-7	2

*Title Only

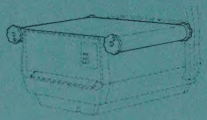
PROJECTION HEAD ASSEMBLY – TRIPLET

Item No.	Description	Part Number	Quantity
1	Projection Head Assy – Triplet, 317 mm (12-1/2")	78-8011-1425-3	1
*	Lens and Holder Assy		1
2	Head Holder – Triplet	78-8011-1216-6	1
3	Triplet Lens Assy		1
	317 mm (12-1/2")	DY-9930-0080-0	1
4	Screw, M3x.5x8	26-1000-0038-4	3
5	Nut, M3x.5	78-8010-7420-0	3
*	Mirror and Case Assy		1
6	Mirror Casing	78-8011-1486-5	1
7	Mirror	78-8011-1487-3	1
8	Mirror Retainer Bracket	78-8011-1488-1	1
9	Screw	78-8005-9961-1	2
10	Foam Tape	78-8011-1467-5	1
11	Washer	77-8001-1515-4	1
12	Knob	DY-1120-0530-0	1
13	Pin, Mirror Pivot	78-8011-1476-6	1
14	Retainer	DY-1150-1044-8	2
15	Label – 317 mm (12-1/2")	78-8011-1334-7	1

*Title Only

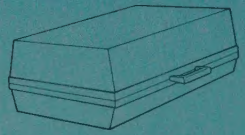
3M BRAND TRANSPARENCY FILMS, TRANSPARENCY MAKERS, AND ACCESSORIES

A VARIETY OF TYPES, COLORS, AND WEIGHTS OF TRANSPARENCY FILMS, TRANSPARENCY MAKERS AND ACCESSORIES ARE LISTED BELOW. THESE ITEMS ARE AVAILABLE FROM YOUR LOCAL AUTHORIZED 3M BUSINESS PRODUCTS DEALER.



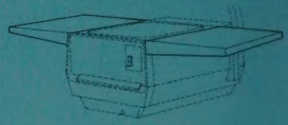
ROLLER ATTACHMENTS
(Front to Rear or Side to Side)

Easily attached for smooth, continuous movement of roll film across stage.



CARRYING CASE
(Portable Projector Only)

Take your projector anywhere to meet your in-house and on-the-road needs.



WORK SHELVES

Ideal for stacking transparencies and other materials. Easily attached to both sides of the projector.

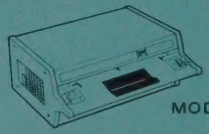
DUAL SPECTRUM TRANSPARENCY MAKER

MODEL 411

3M BRAND DUAL SPECTRUM TRANSPARENCY FILMS

Type 628	Black Image on a Clear Background
Type 628R	Black Image on a Colored Background (Rainbow Assortment – Red, Green, Yellow, and Blue)

INFRARED TRANSPARENCY MAKERS



MODEL 585

MODEL 45

3M BRAND INFRARED TRANSPARENCY FILMS

Image-Tone Films

Types 382, 383, and 574	Black Image on a Clear Background
Type 888	Colored Image on a Clear Background
Type 389	Black Image on a Colored Background (Red, Green, Yellow, Blue or Rainbow)

Standard Line Films

Types 533 and 588	Black Image on a Clear Background
Type 529	Black Image on a Colored Background (Red, Green, Yellow, Blue or Rainbow)
Type 577	Black Image on a Blue Tint Background

Specialty Films

Type 125	Etched – Projects a Black Image on a Clear Background
Type 528	Colored Image on an Opaque Background (Rainbow Assortment – Red, Green, Yellow, Silver, and Blue)
Type 520	Clear Image on a Dense, Black Background

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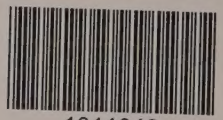

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